Safety Induction
School of Life and Environmental Sciences

Presented by
Introduction

- The university emergency procedures video
Where is SOLES?

- B01 JD Stewart
- B10 Evelyn Williams
- B14 McMaster
- B19 RMC Gunn
- D17 Charles Perkins Centre
- A08 Heydon-Laurence
- A10 Science Road Cottage
- A11 Edgeworth David
- A12 Macleay
- F07 Carslaw
- G08 Biochemistry and Microbiology
Where is SOLES?

- B01 JD Stewart
- B10 Evelyn Williams
- B14 McMaster
- B19 RMC Gunn
- D17 Charles Perkins Centre
- F07 Carslaw
- G08 Biochemistry and Microbiology
- A08 Heydon-Laurence
- A10 Science Road Cottage
- A11 Edgeworth David
- A12 Macleay
- C81 Biomedical Building
Where is SOLES?

- E12 PBI
- Narrabri
- C02F Centre for Carbon, Water and Food
- C08B University Veterinary Teaching Hospital
- C01A JL Shute
- C04B MC Franklin Laboratory
- C44 PBI Admin and Labs
Overview

- Safety contacts at SOLES
- General WHS responsibilities for University members
- Risk Assessments and Safe Work Procedures
- Local safety induction
- Mandatory safety training
- Special processes with specific safety regulations
- Where to find information
- Swipe card access
In an Emergency call

Fire, Ambulance or Police  000*

Security 9351 3333

Mobile Phone 112

Poisons hotline 13 11 26*

*Prefix number with 0 when dialing from a University landline for an outside line
Emergency Evacuation Protocols

- can be found on the University’s Emergency Information page http://sydney.edu.au/campus-life/safety-security.html

- For your local area look for the Evacuation Plan
Emergency Contact Details

For local supervisors, first aid and fire warden contacts, look for the Authorised Entry Only sign

<table>
<thead>
<tr>
<th>Area supervisor(s):</th>
<th>Matthew Austin 9351 2955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Warden:</td>
<td>Matthew Austin 9351 2955 (area)</td>
</tr>
<tr>
<td></td>
<td>Susan Liddell 9351 4533 (building)</td>
</tr>
<tr>
<td>First Aid officer:</td>
<td>Kristl Mauropoulos (level 1) 9351 3135</td>
</tr>
<tr>
<td></td>
<td>Barry Napthali 9351 2955 Brooke Colquhoun, Leslie</td>
</tr>
<tr>
<td></td>
<td>Level 4 9351 2955 David Dall 9351 4541 Lucy Kennedy 9351 5787</td>
</tr>
<tr>
<td>Security Service:</td>
<td>9351-3333</td>
</tr>
<tr>
<td>University Health Service:</td>
<td>9351 3484</td>
</tr>
</tbody>
</table>
Legislative framework

- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2011
- Codes of Practice
University of Sydney policies, procedures & guidelines

- Safety Management System
- Biological Safety and Infection Control
- Bullying
- Chemical Safety Standard
- Electrical Safety Standard
- Fieldwork Safety Standards
- Hazardous Waste Procedures
- Manual Handling
- Radiation and Lasers
- Setting up your workstation
Where to find SOLES safety information and contacts
WORKPLACE HEALTH AND SAFETY

Purchase of hazardous materials (including chemicals, biologicals and radiisotopes)

The pre-procurement checklist (PPC) for hazardous materials ensures that legislative and regulatory requirements are met when ordering chemicals, biologicals and radiisotopes, including access to adequate storage and handling facilities and regulatory authorisation for some high risk substances.

The pre-procurement checklist is required to be filled in the first time a hazardous chemical, radiisotope and biological is ordered from a commercial source such as your building's store, or external chemical suppliers. The form must then be signed off by the individual's supervisor or delegated authority and then a copy of the signed checklist should be emailed to your local safety officer.

To help you fill in the form a set of guidelines have also been created, along with additional information from WHS Services about the procurement of chemicals. To help manage this process with internal requisition orders, we also developed an internal requisition form (please do not use older versions of this form).

Some supervisors have lab managers or specific staff which are largely involved in the ordering process for their lab group. It is possible for the supervisor to delegate the authority by signing off on the pre-procurement paperwork by filling in the request form. All delegations of authority must be approved by Head of School and forwarded to the local safety officer.

- Pre-procurement checklist (PPC) for hazardous materials
Some non-hazardous chemicals may be disposed of down the sink with dilution (e.g. sodium chloride, potassium phosphate), but this is not appropriate for hazardous chemicals.

All hazardous chemical waste needs to be labelled with the chemical name, the volume, the concentration (or the mass for solid waste), the person's name, lab group, and date. The waste must be sealed in a tightly closed strong container (preferably plastic) or in a wet garbage, or strong plastic bag for solid waste like ESR-contaminated gloves. Glass containers should be avoided, unless the waste would dissolve plastic. Once all these conditions have been met, the chemical waste can be left in G06 Room 225 for disposal or A08 Hazardous Waste store P301.

Chemical wastes should not be mixed together unless this is unavoidable (e.g. phenol/chloroform mixture).

If you have many different chemical waste items to dispose of at the same time, you should fill in a dedicated chemical waste disposal form (from waste disposal officers). If chemicals are not safe to move from their current location the waste disposal officers can arrange a special collection from that site.

Radioactive Waste

Methods of disposing of radioactive waste must be organised before conducting any experiments.

Long-lived isotope experiments that generate waste greater than 100 Bq/g must be discussed beforehand with the Radiation Safety Officer. If requiring advice on disposal, contact the Radiation Safety Officer.

If generation of long-lived waste at >100 Bq/g has already occurred or is for some reason unavoidable, the Radiation Officer must be informed, and special arrangements made. Radioactive waste that is not able to be disposed of immediately but will decay to an acceptable level within a year, needs to be stored correctly, i.e. in a suitable container (behind 10 mm perspex shielding or transferred into the Long Term Storage Bunker) labelled with your name, lab group, the isotope, the activity at the date of generation, and the date when activity will be acceptable for disposal (<100 Bq/g). Please see the Radiation Safety Officer for further information.

Fieldwork
SOLES Workplace Health and Safety page


- Information on local procedures for:
  - Purchase of hazardous materials (including chemicals, biologicals and radioisotopes)
  - Spills and hazardous waste clean up
  - Fieldwork and volunteers
- Links to useful WHS tools
- Access to CareerPath for those without a staff unikey
- Information and templates for Risk Assessments and Safe Work Procedures
Workplace Inductions


In the first week you should complete

- Online University WHS induction
- Local Safety induction form
- Hazard assessment form
- Evidence of completed safety training must be submitted to soles.safety@sydney.edu.au
- This will allow you to apply for key and swipe card access
Workplace Induction page


Information on

- card and key access
- SOLES general store (G08)
- Poster printing
- other services and repairs

- Your student card is issued by Campus Cards at the Student Centre Level 3, Jane Foss Russell Building, G02 9am-5pm

- Request access to buildings via online form
**Special training and processes**

Depending on your project, you are required to complete additional training and/or additional processes:

<table>
<thead>
<tr>
<th>Working with chemicals</th>
<th>Working on farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with biological hazards</td>
<td>Fieldwork / field trips</td>
</tr>
<tr>
<td>Working with (laboratory) animals</td>
<td>Working on remote locations</td>
</tr>
<tr>
<td>Working with radioisotopes</td>
<td>Diving</td>
</tr>
</tbody>
</table>
Building Problems

General building maintenance matters such as floods, leaking roof, dripping taps, electrical problems:
- contact Campus Infrastructure Service Desk x12000
- Campus Assist online (login required)
Your responsibilities – part I

- **Safety of people:** you and the people around you.
- **Safety of equipment:** look after it and operate it correctly.
- **Safety of the environment:** dispose of waste carefully.
Your responsibilities – part II

All University staff & students are responsible for safety by:

- Reading, understanding, and complying with safety instructions
- Being familiar with emergency procedures & equipment
Your responsibilities – part III

- Take action to avoid, eliminate or minimise hazards
- Report hazards to the relevant supervisor or service unit
- Use safety devices and personal protective equipment (PPE)
- Seek advice before using new methods, reagents, equipment
- Comply with Risk Assessments and Safe Work Procedures
Risk Assessments and Safe Working Procedures

It is a requirement to read or complete
- a Risk Assessment (RA) and
- a Safe Working Procedure (SWP)
before starting any task that bears a risk.
Hazard versus Risk

- a **HAZARD** has the potential to harm
- a **RISK** arises if a hazard can actually cause a negative event or harm
- Relative risk = likelihood \( \times \) worst imaginable consequence

Nitric acid in closed bottle inside storage cabinet

= **HIGH HAZARD, LOW RISK**

Nitric acid in open beaker on the bench

= **HIGH HAZARD, HIGH RISK**
## Hazard versus Risk

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Potential Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L6</td>
</tr>
<tr>
<td>Expected to occur regularly under</td>
<td></td>
</tr>
<tr>
<td>normal circumstances</td>
<td>Minor injuries or</td>
</tr>
<tr>
<td></td>
<td>discomfort. No medical</td>
</tr>
<tr>
<td></td>
<td>treatment or</td>
</tr>
<tr>
<td></td>
<td>measurable physical</td>
</tr>
<tr>
<td></td>
<td>effects.</td>
</tr>
<tr>
<td>Expected to occur at some time</td>
<td>Medium</td>
</tr>
<tr>
<td>Likely</td>
<td>High</td>
</tr>
<tr>
<td>May occur at some time</td>
<td>High</td>
</tr>
<tr>
<td>Possible</td>
<td>High</td>
</tr>
<tr>
<td>Not likely to occur in normal</td>
<td></td>
</tr>
<tr>
<td>circumstances</td>
<td>High</td>
</tr>
<tr>
<td>Could happen, but probably never</td>
<td></td>
</tr>
<tr>
<td>will</td>
<td>Low</td>
</tr>
<tr>
<td>Rare</td>
<td>Low</td>
</tr>
</tbody>
</table>

| Fatality                           | L2                     |
|                                     | Not Significant        |
|                                     | Minor                  |
|                                     | Moderate               |
|                                     | Major                  |
|                                     | Severe                 |

- **L6**: Minor injuries or discomfort. No medical treatment or measurable physical effects.
- **L5**: Injuries or illness requiring medical treatment. Temporary impairment.
- **L4**: Injuries or illness requiring hospital admission.
- **L3**: Injury or illness resulting in permanent impairment.
- **L2**: Fatality
Hazard versus Risk

Risk Assessments (RAs) are done to
- identify and prioritize hazards
- assess the associated risks
- develop strategies to minimize the relative risks

A Safe Working Procedure (SWP) is part of every RA. It specifies how a task is performed to minimize the associated risks.
Risk Assessment – How does it work?

Step 1. Identify the hazards
- procedures, chemicals, instruments etc.

Step 2. Assess the risks
- what exactly makes it a risk?

Step 3. Identify and prioritize the relative risks
- what could go wrong?
- how likely is an accident?
- how severe would be the harm caused?
Risk Assessment – How does it work?

Step 4. Control the risks

- Apply the hierarchy of hazard control:
  - Eliminate the hazard
  - Substitute with something less hazardous
  - Isolate the hazard by using barriers or distance
  - Engineering controls, e.g. ventilation
  - Minimize amount of hazard or duration of exposure
  - Rearrange the work area
  - Establish safe work procedures (SWP; formerly SOP)
  - Provide training and supervision
  - Wear personal protective equipment (PPE)
General Safety Rules

- Do only tasks you are trained to do
- Use only equipment you are authorized / trained to use
- Read and follow risk assessments and SWPs
- Report hazards and faulty equipment to your supervisor
Reporting incidents, accidents and near misses

When should I report something?

– If someone is injured (e.g. anything that bleeds, requires a doctor / hospital visit or requires time off work)

– If a serious hazard has been created (e.g. a significant spill of flammable or toxic substances)

– If you see a dangerous situation — this is a “near miss” incident and must be reported
Reporting incidents, accidents and near misses

How do I report an incident?

- Tell your supervisor immediately
- Fill in the online incident report form (RiskWare*) within 24 h

*Note: Some students cannot access this system and need to do this with their supervisor
Safety is everyone’s responsibility

Raise safety issues through your normal reporting line e.g. lab supervisor.

If you are unhappy with the resolution raise issue with

- Safety Officer
- Safety Committee member
- Health and Safety Representative from any School

If you are still unhappy, contact University Safety, Health & Wellbeing: http://sydney.edu.au/whs